REFERENCES 85

[119] H. Bostani and V. Moonsamy, "EvadeDroid: A Practical Evasion Attack on Machine Learning for Black-box Android Malware Detection," CoRR, vol. abs/2110.03301, 2021.

- [120] D. D. Yao, X. Shu, L. Cheng, and S. J. Stolfo, Anomaly Detection as a Service: Challenges, Advances, and Opportunities. Synthesis Lectures on Information Security, Privacy, and Trust, Morgan & Claypool Publishers, 2017.
- [121] S. A. Hofmeyr, S. Forrest, and A. Somayaji, "Intrusion Detection Using Sequences of System Calls," J. Comput. Secur., vol. 6, no. 3, pp. 151–180, 1998.
- [122] Y. Fang, C. Huang, L. Liu, and M. Xue, "Research on Malicious JavaScript Detection Technology Based on LSTM," *IEEE Access*, vol. 6, pp. 59118–59125, 2018.
- [123] E. Johnson, D. Thien, Y. Alhessi, S. Narayan, F. Brown, S. Lerner, T. McMullen, S. Savage, and D. Stefan, ", : SFI safety for native-compiled Wasm," Network and Distributed Systems Security (NDSS) Symposium, 2021.
- [124] F. Cohen, "Computer Viruses," in *Proceedings of the 7th DoD/NBS Computer Security Conference 1984*, pp. 240–263, 1986.
- [125] R. L. Castro, C. Schmitt, and G. D. Rodosek, "ARMED: How Automatic Malware Modifications Can Evade Static Detection?," in 2019 5th International Conference on Information Management (ICIM), pp. 20–27, 2019.
- [126] R. L. Castro, C. Schmitt, and G. Dreo, "AIMED: Evolving Malware with Genetic Programming to Evade Detection," in 18th IEEE International Conference On Trust, Security And Privacy In Computing And Communications / 13th IEEE International Conference On Big Data Science And Engineering, TrustCom/BigDataSE 2019, Rotorua, New Zealand, August 5-8, 2019, pp. 240–247, IEEE, 2019.
- [127] W. Wang, Y. Zheng, X. Xing, Y. Kwon, X. Zhang, and P. Eugster, "WebRanz: Web Page Randomization for Better Advertisement Delivery and Web-Bot Prevention," FSE 2016, p. 205–216, 2016.
- [128] H. Aghakhani, F. Gritti, F. Mecca, M. Lindorfer, S. Ortolani, D. Balzarotti, G. Vigna, and C. Kruegel, "When Malware is Packin' Heat; Limits of Machine Learning Classifiers Based on Static Analysis Features," in 27th Annual Network and Distributed System Security Symposium, NDSS 2020, San Diego, California, USA, February 23-26, 2020, The Internet Society, 2020.

86 REFERENCES

[129] M. W. J. Chua and V. Balachandran, "Effectiveness of Android Obfuscation on Evading Anti-malware," in *Proceedings of the Eighth ACM Conference on Data and Application Security and Privacy, CODASPY*, pp. 143–145, 2018.

- [130] P. Dasgupta and Z. Osman, "A Comparison of State-of-the-art Techniques for Generating Adversarial Malware Binaries," *CoRR*, vol. abs/2111.11487, 2021.
- [131] G. Lu and S. K. Debray, "Weaknesses in Defenses against Web-borne Malware (Short Paper)," in Proceedings of Detection of Intrusions and Malware, and Vulnerability Assessment 10th International Conference, DIMVA 2013, vol. 7967, pp. 139–149, Springer, 2013.
- [132] M. Payer, "Embracing the New Threat: Towards Automatically Selfdiversifying Malware," in *Proceedings of The Symposium on Security for Asia* Network, pp. 1–5, 2014.
- [133] N. Loose, F. Mächtle, C. Pott, V. Bezsmertnyi, and T. Eisenbarth, "Madvex: Instrumentation-based Adversarial Attacks on Machine Learning Malware Detection," in *Detection of Intrusions and Malware, and Vulnerability Assessment 20th International Conference, DIMVA 2023*, vol. 13959 of Lecture Notes in Computer Science, pp. 69–88, 2023.
- [134] A. V. Aho, R. Sethi, and J. D. Ullman, Compilers: Principles, Techniques, and Tools, ch. 1, pp. 28–31. USA: Addison-Wesley Longman Publishing Co., Inc., 1986.
- [135] R. Sasnauskas, Y. Chen, P. Collingbourne, J. Ketema, J. Taneja, and J. Regehr, "Souper: A Synthesizing Superoptimizer," CoRR, vol. abs/1711.04422, 2017.
- [136] B. G. Ryder, "Constructing the Call Graph of a Program," *IEEE Transactions on Software Engineering*, no. 3, pp. 216–226, 1979.
- [137] S. Narayan, C. Disselkoen, D. Moghimi, S. Cauligi, E. Johnson, Z. Gang, A. Vahldiek-Oberwagner, R. Sahita, H. Shacham, D. M. Tullsen, and D. Stefan, "Swivel: Hardening WebAssembly against Spectre," in 30th USENIX Security Symposium, USENIX Security 2021, August 11-13, 2021, pp. 1433-1450, 2021.
- [138] E. Johnson, D. Thien, Y. Alhessi, S. Narayan, F. Brown, S. Lerner, T. McMullen, S. Savage, and D. Stefan, "SFI Safety for Native-compiled Wasm," NDSS. Internet Society, 2021.
- [139] M. Willsey, C. Nandi, Y. R. Wang, O. Flatt, Z. Tatlock, and P. Panchekha, "Egg: Fast and Extensible Equality Saturation," *Proc. ACM Program. Lang.*, vol. 5, no. POPL, pp. 1–29, 2021.